

JIS

JAPANESE INDUSTRIAL STANDARD

Continuous Turbidimeter

JIS K 0801 —1986

Translated and Published

by

Japanese Standards Association

Translation without guarantee
In the event of any doubt arising, the original
standard in Japanese is to be evidence

JAPANESE INDUSTRIAL STANDARD

J I S

Continuous Turbidimeter

K 0801-1986

1. Scope

This Japanese Industrial Standard specifies the turbidimeters, hereinafter referred to as the "meters", to be used for the supervision on water quality in public water fields and the quality control of water of exhaust water in factories and places of business.

2. Common Matters

The common matters shall be in accordance with JIS K 0101.

3. Definitions

For the purposes of this standard, following definitions apply. Other definitions are in accordance with JIS K 0101 and JIS K 0211.

- (1) transmission-scattering system A system indicating the turbidity by measuring the intensity ratio of the observed transmitted light and scattered light (generally the front scattered light) by suspensoid when the sample water has been irradiated with a luminous flux.
- (2) surface-scattering system A system indicating the turbidity by measuring the intensity of the observed scattered light (generally the rear scattered light) when the water surface of sample cell from which the sample water is over-flowing quietly has been irradiated with a luminous flux from the above diagonally.
- (3) collecting-water type A type in which the sample water collected by a pump or the like is carried to the meter to measure.
- (4) immersion type A type which measures with holding the body of meter (for example the part other than the indication recorder) in water, requiring no sampling duct particularly.
- (5) degree (formazine) A unit of turbidity in the case where it is measured using the prepared formazine standard solution as the reference. It is also indicated by FTU.
- (6) prepared formazine standard solution A turbidity standard solution which has been prepared in accordance with the method of 8.3.1.
- (7) span calibration solution A span calibration solution which has been prepared in accordance with the method of 8.3.2 (1).
- (8) zero calibration solution A zero calibration solution specified in 8.3.2 (2).

Applicable standards: See page 9.

4. Rated Voltage and Rated Frequencies

The rated voltage of the meter shall be single phase a.c. 100 V, and the rated frequencies shall be 50 Hz or 60 Hz exclusively or 50 Hz and 60 Hz in common use.

5. Classification

The meters shall be classified as given in the following:

5.1 Classification According to Principle of Meter

- (1) Transmission-Scattering System
- (2) Surface-Scattering System

5.2 Classification According to Sample Water Introducing Type

- (1) Collecting-Water Type
- (2) Immersion Type

6. Performances

Concerning to meters of which maximum scale ranging from 20 degrees (formazine) to 1000 degrees (formazine), the following performances shall be satisfied.

- (1) Repeatability When tests have been carried out in accordance with the testing method of 8.4 (1), the deviations, in respective measuring steps, hereinafter referred to as the "range", shall be within $\pm 3 \%$ of the maximum scale value.
- (2) Zero Drift When tests have been carried out in accordance with the testing method of 8.4 (2), the deviations shall be within $\pm 3 \%$ of the maximum scale value in each range.
- (3) Span Drift When tests have been carried out in accordance with the testing method of 8.4 (3), variation of the spans shall be within $\pm 3 \%$ of the maximum scale value in each range.
- (4) Linearity When tests have been carried out in accordance with the testing method of 8.4 (4), the linearity shall be within $\pm 5 \%$ of the maximum scale value in each range.
- (5) Stability against Power Source Voltage Variation When tests have been carried out in accordance with the testing method of 8.4 (5), variation of the indicated values shall be within $\pm 3 \%$ of the maximum scale value in each range.
- (6) Insulation Resistance When tests have been carried out in accordance with the testing method of 8.4 (6), the insulation resistance shall be 5 M Ω or over.